Line-output Converter 

USER's MANUAL

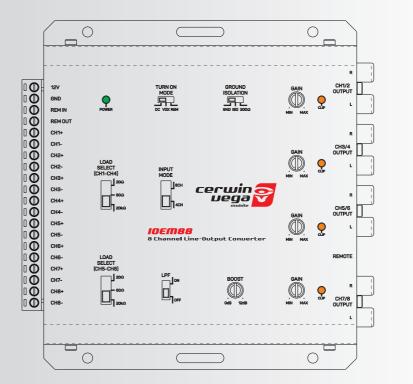
IOEM66 6 IN / 6 OUT LINE-OUTPUT CONVERTER 8 IN / 8 OUT LINE-OUTPUT CONVERTER ACTIVE LINE-OUTPUT CONVERTER

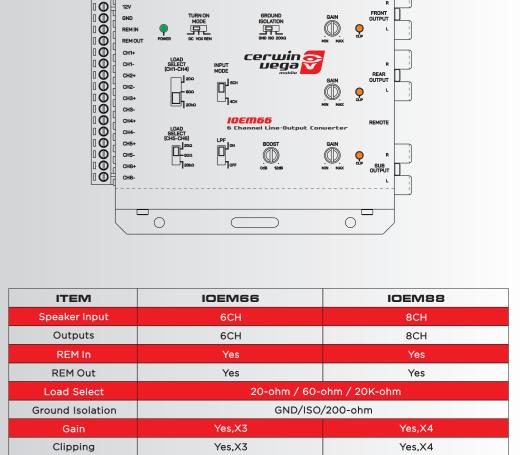
#### INTRODUCTION

Thank you for your purchase of the Cerwin Vega IOEM66/88 series line-output converter. Modern cars have evolved into more than just vehicles; they now double as entertainment centers. It's become increasingly common for new head units to come equipped with integrated amplifiers, delivering around 30 to 45 watts per channel, which adequately powers the OEM speakers. While the pre-installed or OEM music system may suffice for those who aren't too particular about audio quality, it falls short of captivating drivers and passengers with its performance. Upgrading to a high-quality OEM audio system can be quite expensive. OEM audio system can be quite expensive.

Enter the line-out converter (LOC), also known as a high-to-low level converter. This device, with its remarkably low distortion, addresses the issue by enhancing the audio experience. Cerwin Vega understands that modern OEM integration demands more than just a basic converter; it requires a device that can bypass the restrictions imposed by OEM head units, preventing upgrades from being refused. Additionally, it should help eliminate environmental noise interference from entering the audio

## **IOEM66/88 FEATURES OVERVIEW**





Yes, Sub CH

Yes,Sub CH

REM/VOX/DO

6CH/4CH

Yes.Sub CH

141.1x125.5x24.0

cerwin vega

200

Due to continuing products improvement, features and specifications are subject to change without notice

Yes,Sub CH

Yes,CH7 & 8

REM/VOX/DO

8CH/4CH Yes.CH7 & 8

155.1x125.5x24.0

ACTIVE LINE-OUTPUT CONVERTER

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Boost(0-12dB)

Input Mode

Dimensions(LxWxH)mm



# ACTIVE LINE-OUTPUT CONVERTER

#### **FEATURES**

1) Speaker Inputs: connect to head unit or amplifier speaker outputs. It receives the signal that your amplifier can't handle.

2)Outputs: Connect to the amplifier inputs. The signal processed by the device is what just the amplifier wants.

3) REM In: Rem turn-on input. It works with the "REM" in the "Turn-on" mode.

4) REM Out: Connect to aftermarket audio equipment with "Rem In". Rem-out will always remain when the IOEM is turned on (regardless of the turn-on method). Connect it to only 1 aftermarket amplifier.

5) Load Select: 20-ohm/60-ohm/20k-ohm Many OEM head units require a resistance load to output audio signals, so an LOC without that load won't work. 20-ohm or 60-ohm are compatible with most such systems. Select 20-ohm/60-ohm for those systems, and 20k-ohm for all the rest.

6) Ground Isolation: Try different switches when the "alternator whine "or "ground noise" creep into audio path, as power ground and signal ground are not tied together. Turn off the converter when switching it.

GND: power supply has the same ground as the audio.

ISO: The power supply ground is separated from the audio.

200-ohm: There is 200-ohm load between the power ground and the audio ground

7) Gain: It adjusts the output signal for every channel pair. 9.5V RMS

8) Clip: The LEDs lights up then the output signal gets distorted.

9) LPF: It can be switched off or activated to filter signal above 250Hz. The 2 rear channels are mostly for subwoofers

10) Boost: Adjusts bass from 0-12dB at 45Hz.

11) Turn-on Mode: It provides the drivers with the convenience to choose different ways to activate

REM: It's a traditional way of triggering the IOEM66/88 to work but provide you timely control when be turned on or off via ignition.

DC: The IOEM66/88 will be activated when the head unit is on, but please note the signal from the should be a DC offset one

AUD: When VOX is selected, the IOEM66/88 will only turn on when the head unit plays something,

radio, music from CD, or Bluetooth streaming. 12) Input Mode: When you want to get 6 or 8 outputs with the 4 speaker level inputs, switch it to

The 6 or 8 outputs will be fed with the same source, but you can still set LPF and or Boost for it.

the signal through the rear channels

#### ACTIVE LINE-OUTPUT CONVERTER

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# INSTALLATION

1) Make all connections with the power off and connect the battery ground in the last step.

LOAD SELECT (CH1-CH4)

2) Run constant +12V power to the IOEM66/88 12V connector. 16 AWG recommended.

4) Ensure the device has a stable, dry, and well-ventilated base, and is away from moisture, heat and dirt.

5) Do not mount it directly on the vehicle's body, frame, or structure

6) Never place the device next to the loudspeaker box as it could cause vibrations.

7) It is advisable to place RCA cables as far away from the vehicle's wiring, power cables, and output

8) Please make wires as short as possible in order to reduce noise and loss of power

9) Professional installation is required.

10) Run the remote level control for best driver access.

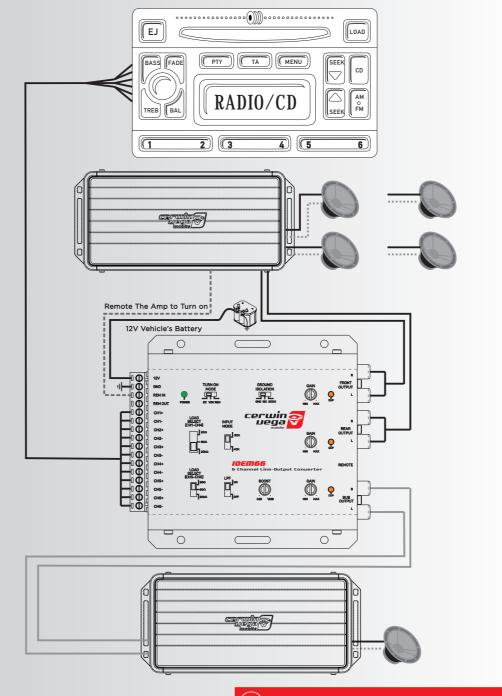
# **TECH SPECIFICATIONS**

The IOEM88 and IOEM66

Operating Voltage	9 to 16V	
Input Sensitivity	0.5 to 40V	
Max 40V as Input	Must be 20K-ohm load	
Output Voltage	Max. 9.5V @ 13.8V	
Input Impedance	20-ohm / 60-ohm / 20K-ohm	
Signal to Noise	>110dB @6.4V output	
THD+N	<0.01%	
Frequency Response	10-20kHz	
Max Current Draw	110 mA(IOEM88, 200mA)	
Output Impedance	< 120-ohm	
Gain	-28 to 1 dB	
Turn-On Trigger, DC	3 to 7V	
Bass Boost(at 45Hz)	0 to +12dB	
Low Pass Filter(LPF)	250Hz	
Terminal Gauge	Terminal Gauge Quick Connect / 16# AWG	
Remote Level Knob	Included	

### ACTIVE LINE-OUTPUT CONVERTER

TYPICAL WIRING



# ACTIVE LINE-OUTPUT CONVERTER

# WARRANTY

Thank you for purchasing a Cerwin Vega Mobile product and we hope to provide you countless hours of listening enjoyment.

Cerwin Vega Mobile warrants all of our interfaces to be free of defects in materials and workmanship for a period of one (1) year.

This warranty is non-transferable and applies only to the original purchaser from an authorized Cerwin Vega Mobile dealer. If service is required and necessary under this warranty due to manufacturing defect or malfunction, then Cerwin Vega Mobile will repair and/or replace the defective product with either a new or remanufactured like product at no charge at our defective product with either a new or remanufactured like product at no charge at our

Damage to product caused by the following will not be covered under this warranty: abuse, accident, misuse, neglect, modifications, repairing attempts, seller/installer misrepresentation. This warranty does not cover any incidental, consequential, or cosmetic damage due to accidents or normal wear and tear, nor does it cover the cost of removing or reinstallation of the product. Warranty is void if the products serial number has been removed, defaced, and/or tampered with.

We recommend that you contact your Cerwin Vega Mobile authorized dealer where your original purchase was made to initiate all warranty claims. Our authorized dealers can guide you through the warranty procedure to ensure that your claim will be processed in a timely manner. All warranty returns must be accompanied with a proof of purchase (a copy of the original sales receipt) and be shipped freight prepaid to our facility with an RA (Return Authorization) number clearly marked on the outside of the package. Direct returns from consumers or non-authorized dealers will be refused if shipped without a valid RA number authorized by Cerwin Vega Mobile

Products purchased outside of the U.S.A. are covered only by that country's distributor and not by Cerwin Vega Mobile U.S.A.
Please Ship All Warranty Claims With Pre-Authorized RA Number

Please Contact Customer Service for Further Warranty Information: U.S.A. Tel: 213-261-4161 / Fax: 213-246-2423 / Tech Support 213-261-4161

# **Technical Support**

Phone: 213-261-4161

Email: helpdesk@dat-cvm.com



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Line-output Converter USER's MANUAL

**IOEM66** 6 IN / 6 OUT LINE-OUTPUT CONVERTER **IOEM88** 8 IN / 8 OUT LINE-OUTPUT CONVERTER

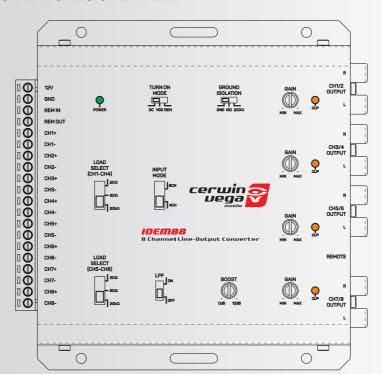
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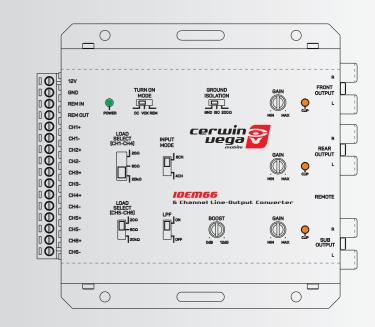
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## **IOEM66/88 FEATURES OVERVIEW**





ITEM	IOEM66	IOEM88
Speaker Input	6СН	8CH
Outputs	6CH	8CH
REM In	Yes	Yes
REM Out	Yes	Yes
Load Select	20-ohm / 60-ohm / 20K-ohm	
Ground Isolation	GND/ISO/200-ohm	
Gain	Yes,X3	Yes,X4
Clipping	Yes,X3	Yes,X4
LPF On/Off	Yes,Sub CH	Yes,Sub CH
Boost(0-12dB)	Yes,Sub CH	Yes,CH7 & 8
Turn On Mode	REM/VOX/DC	REM/VOX/DC
Input Mode	6CH/4CH	8CH/4CH
Remote	Yes,Sub CH	Yes,CH7 & 8
Dimensions(LxWxH)mm	141.1x125.5x24.0	155.1x125.5x24.0
Chassis Body	Steel	Steel

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ACTIVE LINE-OUTPUT CONVERTER

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## ACTIVE LINE-OUTPUT CONVERTER

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12) Input Mode: When you want to get 6 or 8 outputs with the 4 speaker level inputs, switch it to The 6 or 8 outputs will be fed with the same source, but you can still set LPF and or Boost for it.

13) REMOTE: IOEM88/66 provides optional remote level control for rear channels. It's an attenuation control of the signal through the rear channels

#### ACTIVE LINE-OUTPUT CONVERTER

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# **INSTALLATION**

1) Make all connections with the power off and connect the battery ground in the last step.

LOAD SELECT (CH1-CH4)

2) Run constant +12V power to the IOEM66/88 12V connector. 16 AWG recommended.

3) Fully open the terminals before inserting any wire.

4) Ensure the device has a stable, dry, and well-ventilated base, and is away from moisture, heat and dirt

5) Do not mount it directly on the vehicle's body, frame, or structure.

6) Never place the device next to the loudspeaker box as it could cause vibrations.

7) It is advisable to place RCA cables as far away from the vehicle's wiring, power cables, and output

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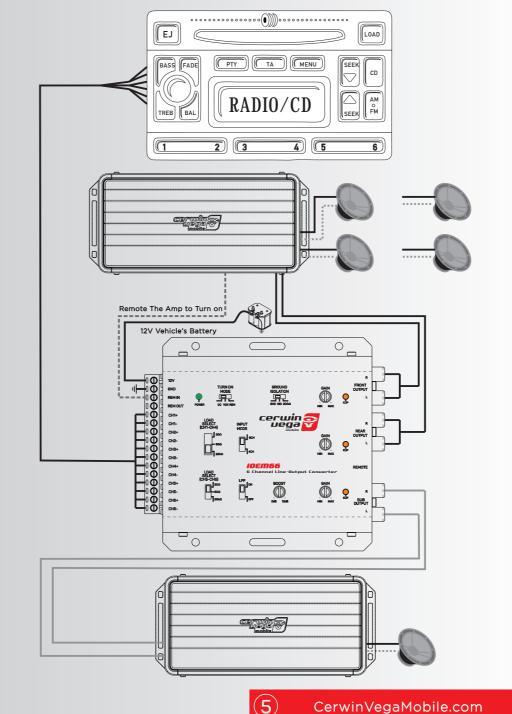
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Damage to product caused by the following will not be covered under this warranty: abuse, accident, misuse, neglect, modifications, repairing attempts, seller/installer misrepresentation. This warranty does not cover any incidental, consequential, or cosmetic damage due to accidents or normal wear and tear, nor does it cover the cost of removing or reinstallation of the product. Warranty is void if the products serial number has been removed, defaced, and/or tampered with.

Warranty Procedure:
We recommend that you contact your Cerwin Vega Mobile authorized dealer where your original purchase was made to initiate all warranty claims. Our authorized dealers can guide you through the warranty procedure to ensure that your claim will be processed in a timely manner. All warranty returns must be accompanied with a proof of purchase (a copy of the original sales receipt) and be shipped freight prepaid to our facility with an RA (Return Authorization) number clearly marked on the outside of the package. Direct returns from consumers or non-authorized dealers will be refused if shipped without a valid RA number authorized by Cerwin Vega Mobile beforehand

Products purchased outside of the U.S.A. are covered only by that country's distributor and not by Cerwin Vega Mobile U.S.A.
Please Ship All Warranty Claims With Pre-Authorized RA Number

Please Contact Customer Service for Further Warranty Information: U.S.A. Tel: 213-261-4161 / Fax: 213-246-2423 / Tech Support 213-261-4161

# **Technical Support**

Phone: 213-261-4161

Email: helpdesk@dat-cvm.com



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